

- Figure 3. Lateral view of second-instar larva.  
 Figure 4. Lateral view of cephalopharyngeal sclerites of second-instar larva.  
 Figure 5. Posterior spiracles of second-instar larva.  
 Figure 6. Lateral view of third-instar larva. 1, First apparent or cephalic segment; *oh*, oral hooks; *asp*, anterior spiracles; *spa*, spines on anterior margin of segment; *sp*, spines on posterior margin of segments; *lf*, lateral fusiform area; 12, twelfth segment.  
 Figure 7. Lateral view of cephalopharyngeal sclerites of third-instar larva. *oh*, oral hooks; *hs*, hypostomal sclerites; *ps*, parastomal sclerites; *dps*, dorsopharyngeal sclerites; *phs*, pharyngeal sclerites; *dc*, dorsal cornu; *vc*, ventral cornu.  
 Figure 8. Posterior spiracles of third-instar larva.  
 Figure 9. Posterior view of twelfth or last apparent segment of third-instar larva. *pc*, posterior cavity; *ps*, posterior spiracle; *a*, anus; *at*, anal tubercle; *t*, tubercle on border of posterior cavity.

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## STUDIES IN CERTAIN GENERA OF AMERICAN BLATTIDAE (ORTHOPTERA).

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This is the first of a series of short papers dealing with American roaches, largely tropical in distribution, in the United States National Museum. Some of the new species were examined by Mr. A. N. Caudell, prior to his death, and set aside for further study; others have been received more recently in quarantine interceptions or have been detected in unstudied material.

During a recent visit to the Academy of Natural Sciences of Philadelphia the facilities and collection of that institution were placed at the disposal of the writer by Mr. J. A. G. Rehn, and grateful acknowledgment of that courtesy is here made. The writer would also express his especial indebtedness to Mr. Morgan Hebard for the privilege of examining material in the latter's collection and for personal advice and assistance.

In this paper the genera *Aglaopteryx*, *Attaphila*, *Nauclydas*, and *Poroblatta* are discussed. In addition to supplying distributional records of previously known and descriptions of new species, a survey of each genus is made, with a key to all known species whenever practical. In this and following papers of this series, the genera treated are not necessarily chosen in phylogenetic sequence, but according to the availability of unrecorded material and the extent of the writer's study of certain groups. Thus, new species in such large genera as *Neoblattella* will not be described until it is possible to study the entire genus rather completely.

The Genus *AGLAOPTERYX* Hebard.

*Aglaopteryx* Hebard, Mem. Amer. Ent. Soc., No. 2, p. 30, 1917 (genotype, *A. gemma* Hebard, by original designation).

*Aglaopteryx* is closely related to *Euthlastoblatta* Hebard, and though the general appearance of the two genera is considerably different it is difficult to give constant characters for use in a key. One character common to the two genera, the possession of pulvilli only on the fourth tarsal segment, must be interpreted with care when separating them from related genera, as the ventral apices of the three basal segments of dry specimens sometimes appear white and like small pulvilli.

The tegmina of all known species of *Aglaopteryx* have a distinct brown design on a light background and all except *lita* Hebard have a characteristic pronotal design of dark upon light, whereas *Euthlastoblatta*, as now known, is essentially dark. The male subgenital plate is ordinarily much more developed, with more conspicuous styli, in *Aglaopteryx* than in *Euthlastoblatta*, and in some cases the proximal spines of the ventro-anterior margin of the anterior femur are so small as to be seen with difficulty, in contrast to the rather strong spines of *Euthlastoblatta*.

In addition to the presence of pulvilli only on the fourth tarsal segment, important generic characters of *Aglaopteryx* include the following: Ventro-anterior margin of anterior femur with spines decreasing suddenly in size, terminated by two elongate spines; ventral margins of middle and hind femora armed with elongate, moderately stout spines; tarsal claws and dorsum of male abdomen unspecialized; arolia present; branches of median vein of tegmen, when present, oblique; intercalated triangle of wing very small.

When *Aglaopteryx* was erected only two species were known. Later, *lita* Hebard (Mem. Amer. Ent. Soc., No. 4, p. 33, Pl. 2, figs. 14, 15, 1919) was described from Panama and more recently Rehn (Trans. Amer. Ent. Soc., Vol. 58, pp. 103-118, 1932) has revised the Bahaman, Bermudan, and West Indian complex, adding four more. The two species here described and others in the National Collection, still undescribed because males are lacking or because of poor condition, indicate that a considerable group is involved.

The new species, *notabilis*, is the first record of the genus from the mainland of South America, but such a southward extension within the tropics does not seem unlikely. The unique type, however, may have been carried in commerce.

As suggested by Rehn in 1932, a practical key to the species is difficult to prepare because of the complicated and highly important male genitalia. The following key may be used best in conjunction with previous literature on the genus.

KEY TO SPECIES OF AGLAOPTERYX.

1. Pronotum all dark except anterior and lateral margins. (Panama)....  
*lita* Hebard.  
 Pronotum light with dark discal markings.....2
2. Design of pronotum composed of two lateral stripes, connected anteriorly, and a mesal anchor-like figure with its arms connected to the lateral stripe on each side. (Of the general type shown in fig. 5).....3  
 Design composed of two lateral stripes, not connected anteriorly, and without anchor-like figure or, if with an indication of one, the arms not connected to the lateral stripe.....5
3. Tegmina not reaching beyond middle of abdomen, subquadrate; wings absent; male subgenital plate with left style scarcely developed, right style very blunt, nearly as broad as long. (South-eastern U. S. and Bahamas).....*gemma* Hebard.  
 Tegmina extending beyond middle of abdomen, of general form as in fig. 6; wings well developed; male subgenital plate with left style conspicuous, right style rather pointed, at least twice as long as broad.....4
4. Male subgenital plate as in fig 8; tegmina reaching apex of supra-anal plate<sup>1</sup> (Puerto Rico).....*absimilis*, new species.  
 Male subgenital plate not as in fig. 8; tegmina leaving three caudal abdominal tergites exposed. (Bermuda).....*occulta* Rehn.
5. Lateral margins of pronotal stripes very irregular, as in fig. 3; face with a conspicuous dark transverse bar. (Southeastern Brazil)....  
*notabilis*, new species.  
 Lateral margins of pronotal stripes evenly curved; face lacking a transverse bar.....6
6. Tegmina leaving five abdominal tergites exposed; penultimate segment of maxillary palpus strongly infundibuliform, about twice as long as apical breadth; face with two small dark spots. (Jamaica)....  
*vegeta* Rehn.  
 Tegmina reaching nearly to or slightly beyond apex of abdomen; penultimate segment of maxillary palpus less strongly infundibuliform; face with no conspicuous markings.....7
7. Size large for the genus (length of body 12 mm. or more); width of occipital interocular space (cephalad) about four-fifths that between antennal scrobes; mesal margins of pronotal stripes practically straight except for a small notch. (Cuba).....*mira* Rehn.

<sup>1</sup> The statement that a supra-anal plate is absent in Blattidae and Mantidae appears in a recent paper by the author (Jour. N. Y. Ent. Soc., Vol. 44, p. 298, 1936). As Snodgrass has noted (Principles of Insect Morphology, p. 254, 1935), the dorsal apex in Blattidae belongs to the tenth segment, while in Acrididae it represents the eleventh segment. In strict morphological terminology, "supra-anal plate" refers to the eleventh segment only, though taxonomists use the term for the apical flap-like covering of either the tenth or the eleventh segment.

- Size normal (body less than 12 mm.); interocular space narrower than indicated above; mesal margins of pronotal stripes with one or more broadly rounded emarginations.....8
8. Posterior end of each pronotal stripe with a short mesal extension, resulting in a doubly emarginate margin; male subgenital plate with no appendage laterad of each style; left style extremely broad and blunt. (Puerto Rico).....*devia* Rehn.
- No mesal extension of pronotal stripe; male subgenital plate with an appendage laterad of each style; left style decidedly slender and acuminate. (Cuba).....*diaphana* (Fabricius).

***Aglaopteryx absimilis*, new species (figs. 5, 6, 7, 8).**

*Male*.—General form short, flattened, ovate; surface moderately polished, tegmina and wing barely surpassing supra-anal plate, leaving exposed apex of subgenital plate and at least one-half the length of cerci.

Head almost entirely concealed from above, compound eyes prominent; interocular space narrower than distance between antennal scrobes, about equal to length of basal two segments of antenna. Maxillary palpus reaching to apex of front coxa; antepenultimate segment slender, cylindrical, about equal to apical and longer than penultimate segment, the latter somewhat infundibuliform. Basal segment of antenna not conspicuously swollen at tip; third segment elongate, longer than second; several succeeding segments transverse, then grading from quadrate to slightly elongate near apex.

Pronotum shaped as illustrated (fig. 5); lateral margins sloping along anterior margin so as to fit curve of occiput. Tegmen as in fig. 6; costal field with about 13 veins reaching margin; median vein with at least five oblique branches evident. Wing as broad as long; about eight well defined costal veins, not noticeably clubbed; median vein forked twice near apex, reaching margin in three places; ulnar vein also with two branches from main stem, all reaching margin; seven short transverse veins going to the anal sulcus from ulnar vein distad of basal fork. Intercalated triangle scarcely evident. Legs typical of the genus; proportions of tibia, tarsal segments, and basitarsus of posterior leg as 31 : 23 : 12.

Supra-anal plate emarginate at apex, appearing in ventral view as in fig. 7, with a projecting genital hook. Subgenital plate with conspicuous styles and median projections as shown in fig. 8. Within the genital chamber dorsad of the subgenital plate is a sharp, strong hook which curves toward the right. Cerci rather large, flattened, apices acute.

*Coloration*.—Pronotum delicately margined with light brown, lateral expansions transparent, design in rich dark brown (fig. 5). Tegmen cloudy, scarcely transparent, streaks of pale brown between costal veins, design dark brown, paler along posterior margin. Wing veins largely pale, somewhat darkened in a broad subapical band and in anterior anal field. Eyes black; interocular space dark brown, grading into buff on occiput; remainder of head a very pale buff except for brown at frontal pits and basimandibular membrane. Antennal segments beyond the second marked with brown. Ground color of legs pale; bases of middle and hind coxae and dorsal margin of front femur brown; dorsal margins of tibiae and ventral margin of hind femur conspicuously spotted with

brown at bases of spurs. Thoracic pleura dark at bases, the dark color extending along margins of coxae. Mesonotum white; mesal posterior margin, double mesal bars extending longitudinally, and a spot centrally located in each lateral half brown. Metanotum white except for two short mesal longitudinal brown bars. Dorsum of abdomen brown, slightly mottled with buff. Ventral surface darker at lateral margins; subgenital plate amber. Cerci mostly white above; extreme bases, apices, and most of ventral surface brown.

*Measurements.*—Length of body 8.5 mm., of pronotum 2.53, of hind tibia 3.15, of tegmen 6.3; width of pronotum 3.96 mm., of tegmen 2.55.

*Type locality.*—Cayey, Puerto Rico.

*Type No.* 52012 U. S. N. M.

A single adult male collected March 16, 1917, by R. T. Cotton.

***Aglaopteryx notabilis*, new species (figs. 1, 2, 3, 4).**

*Female.*—General form large and robust; supra-anal plate and the two preceding tergites exposed. Tegmina and pronotum polished. Head similar to that of *absimilis*; penultimate segment of maxillary palpus slightly infundibuliform but not nearly as strongly so as in *vegeta*.

Pronotum as shown in fig. 3, gently convex, imperfectly transparent near lateral margins. Tegmen of same texture as pronotum, form as figured (fig. 1); 12 costal branches reaching margin; seven oblique branches of median vein evident; apex of anal sulcus broadly recurved, prominent. Wing of same general form as in *absimilis*; about 10 costal veins, slightly clubbed; median vein forked a short distance beyond middle of wing, each branch once forked; ulnar vein simple; numerous transverse veins connecting longitudinal veins anterior to anal sulcus; intercalated triangle scarcely evident; first three veins of anal field conspicuous, arising from a triple fork of first anal vein.

Front femur as figured (fig. 2), ventro-anterior margin with three small, inconspicuous spines followed by a row of regularly spaced, minute spines; two strong, curved, apical spines; ventro-posterior margin bearing a number of weak and irregularly spaced, minute spines; a small apical spine. Armature of other legs equally typical of genus. Proportions of tibia, tarsal segments, and basitarsus of hind leg as 43 : 37 : 20.

Supra-anal plate triangular in general outline, a median longitudinal ridge evident, apex emarginate as shown in fig. 4; margin sparsely clothed with setae. Subgenital plate scoop-like, surpassing supra-anal plate, apex pointed. Cerci typical of genus.

*Coloration.*—Pronotum pale straw-colored, delicately margined with light buff, design in rich brown as in fig. 3. Tegmen of color shades as in *absimilis*, design as figured (fig. 1). Wing with tips of five veins at apex conspicuously brown, superficially giving a clubbed appearance, anterior anal veins noticeably darkened. Eyes mottled brown and black; interocular space brown, abruptly contrasted anteriorly to a narrow interocellar band of pale buff and grading posteriorly into mottled buff on occiput. A conspicuous narrow band of dark brown connecting ventral extremities of compound eyes, extending in a broad curve reaching up between the antennal sockets. Ground color of legs yellow

buff; coxae with black at bases and in a narrow submarginal strip along exterior margin. Tibiae and middle and hind femora blotched with dark brown at bases of spurs; posterior margins of femora, apices of tibiae, and bases of tarsal segments dark brown. Thoracic pleura marked with dark brown. Meso- and metanota sordid gray, the former with two mesal longitudinal dark bars extending from beneath pronotum. Dorsum of abdomen mottled brown; supra-anal plate pale, except on either side at base, setae light amber. Ventral surface mottled, darker on lateral margins, sternites spotted with brown mesally; subgenital plate dark brown, a small pale area on each side of extreme apex. Cerci largely pale except at base.

*Measurements*.—Length of body 12 mm., of pronotum 3.60, of hind tibia, 4.68, of tegmen 7.5; width of pronotum 5.41 mm., of tegmen 3.64.

*Type locality*.—Itapemirim, Brazil, South America.

*Type No.* 52013 U. S. N. M.

A single adult female collected in 1908.

In the Pseudomopinae it is usually considered a conservative policy to describe species only when males are present. In this case, however, the features of size, facial pattern, and pronotal design appear sufficiently distinctive to warrant description from the female alone.

#### The Genus *ATTAPHILA* Wheeler.

*Attaphila* Wheeler, Amer. Nat., Vol. 34, No. 407, pp. 851–862, 1900 (genotype, *A. fungicola* Wheeler, by monotypy).

Important generic characters of *Attaphila* include the following: Form elliptical, surface clothed with scattered hairs; all antennal segments except second and third longer than wide; tegmina and wings absent in female, reduced or absent in male; ventral margins of anterior femora unarmed except for a few hairs and a delicate terminal spine; middle and hind femora each with a strong genicular spine; large arolia present.

The genus *Attaphila* as now known contains the following species: *fungicola*<sup>2</sup> Wheeler, 1900, Texas; *bergi* Bolivar, 1901, Argentina and Uruguay; *sexdentis* Bolivar, 1905, Brazil; *schuppi* Bolivar, 1905, Brazil; *bergi* var. *minor*<sup>3</sup> Bruch, 1916, Argentina.

#### *Attaphila fiava*, new species (fig. 9).

The general form of the male is as in *fungicola* Wheeler, from which it differs noticeably in the structure of the subgenital plate (fig. 9). It is less closely allied to *bergi* Bolivar, from which it differs in the tapering, less quadrate abdomen, triangular supra-anal plate, and asymmetrical subgenital plate.

<sup>2</sup> See Hebard, M., Mem. Amer. Ent. Soc., No. 2, pp. 212–215; pl. 10, figs. 5–6, 1917, for the most recent complete diagnosis of *fungicola* and a discussion of generic characters.

<sup>3</sup> Bruch, C., Revista del Museo de la Plata, t. 23 (segunda serie, tomo 10), pp. 329–331, fig. 17, A–F, 1916.

*Male*.—Head triangular; antennal sockets deeply excavated. Antennal segments 2 and 3 as wide as long; others elongate. Compound eyes inconspicuous. Labial palpus minute. Maxillary palpus with apical segment longer than subapical.

Pronotum hood-like, concealing head from above. Tegmina of same form as in *fungicola*, barely overlapping at inner margins, slightly exceeding margins of abdomen at sides, exposing base of abdomen. No wings visible. Femora short and stout; a curved genicular spine present on middle and hind femora; hind femur deeply excavated along posterior margin for reception of tibia. Tibiae strongly armed with spines in contrast to weakly armed femora. Tarsal claws minute; arolia large.

Abdomen with eight visible dorsal segments posterior to tegmina; dorsal surface unspecialized. Cerci and supra-anal plate as in *fungicola*. Subgenital plate as figured. Body sparsely covered with fine hairs.

*Coloration*.—General color amber yellow, tegmina and legs a noticeably darker shade than pronotum and abdomen. Arolia and labial palpi white.

*Measurements*.—Length of body 2.83 mm., of pronotum 0.97, of tegmen 0.81, of hind tibia 0.53; width of pronotum 1.57 mm., of tegmen 1.26.

*Type locality*.—Botanic Gardens, Belize, British Honduras.

*Type No.* 52014 U. S. N. M.

A single adult male collected by P. G. Goll, July 11, 1904.

#### The Genus **POROBLATTA** Hebard.

*Poroblatta* Hebard, Trans. Amer. Ent. Soc., Vol. 45, p. 123, 1919 (genotype, *P. cylindrica* Hebard, by original designation).

The subfamily Perisphaerinae as found in America has several rather marked generic complexes. The genera exemplified by *Hormetica* Burmeister are typically winged in both sexes and the pronotum is frequently heavily sculptured. *Hormetica* has close affinities with the Panchlorinae. *Antioquita* Hebard and *Litopeltis* Hebard are very like Epilamprinae and, as Hebard (Trans. Amer. Ent. Soc., Vol. 59, p. 27, 1933) has suggested, the correct subfamily placement of all tropical American species now assigned to the Perisphaerinae may not yet have been determined.

The complex to which *Poroblatta* belongs contains several genera possessing for the most part<sup>4</sup> males with fully developed tegmina, and females having the tegmina very short or entirely absent (as in *Acroporoblatta* Hebard, 1919). The species of *Poroblatta* apparently live as borers in stumps and logs in a manner similar to those of *Cryptocercus* Scudder in the United States.

<sup>4</sup> See Rehn, J. A. G., Trans. Amer. Ent. Soc., Vol. 56, p. 58, 1930, for the description of *Nauclidas*, the male of which has abbreviate tegmina, and a discussion of associated genera.

The two new species here described differ sufficiently in the general shape of the body and form of the pronotum to be ineligible for placement in *Galiblabatta* Hebard or *Colapteroblatta* Hebard, while the presence of arolia eliminates *Styphon* Rehn, which has none, from consideration; nor can the present species properly be referred to *Nauclydas* Rehn, because they lack the strongly roughened, punctate integumental surface characteristic of that genus.

The following key is based on the female sex because all known species of *Poroblatta* were originally described from the females and only recently have the males of some of the species been associated with their mates.

KEY TO THE SPECIES OF *Poroblatta* BASED ON THE FEMALE SEX.

1. Tegmen a lateral pad having the apical mesal margin convex or straight oblique, not roundly emarginate; basal mesal margin one-fourth or less the length of apical mesal margin, not extending to base of metanotum.....2
- Tegmen having apical mesal margin slightly to very broadly emarginate; basal mesal margin at least one-half the length of apical mesal margin, extending from pronotum to base of metanotum.....3
2. Tegmen bluntly lanceolate, extending less than one-half the distance across the metanotum; dorsal surface of body almost uniformly blackish brown. (Venezuela).....*pluto* Rehn.
- Tegmen subtriangular, extending to the base of the second abdominal tergite; lateral margin of pronotum and costal margin of tegmen distinctly lighter in color than remainder of dorsal surface. (Colombia).....*cylindrica* Hebard.
3. Dorsal surface blackish chestnut brown with a distinct band of lighter color one-third the width of tegmen along the costal margin of tegmen and lateral margins of pronotum; shape of tegmen not as in fig. 12.....4
- Dorsal surface black with faint suggestion of lighter color along the costal margin of tegmen and at anterior-lateral angles of pronotum; shape of tegmen as in fig. 12. (Colombia).....*caudelli*, new species.
4. Tegmen roundly emarginate to a greater extent than shown in fig. 12; lighter coloration of costal margin of tegmen extending along dorsal surface of abdomen as a pale marginal area one-fourth the width of abdomen (length of type 26 mm.). (Colombia).....*apatela* Hebard.
- Tegmen hardly emarginate, as shown in fig. 10; dorsum of abdomen of uniform coloration (length of type, 21 mm.). (Colombia).....  
*bicolor*, new species.

***Poroblatta caudelli***, new species (figs. 11, 12).

This species is nearest *pluto* in coloration and *apatela* in form.

*Female*.—General form elongate, convex. Surface finely but conspicuously punctate, more deeply punctate on pronotum than on dorsum of abdomen.



Head entirely concealed from above, shape typical of the genus. Vertex plainly and densely punctate; coronal suture and frontal sutures leading to ocelli visible. Ocelli inconspicuous. Compound eyes slightly more distant than antennal sockets. Apical segment of maxillary palpus longer than penultimate segment, the latter noticeably swollen at apex. Basal segment of antenna elongate, curved at base; third segment three times as long as wide; second slightly less than twice as long as wide; other basal segments globular to quadrate; apical segments elongate.

Pronotum markedly hood-like; a definite dorsal marginal line present throughout; anterior lateral angles broadly rounded; posterior lateral angles rather abruptly rounded, rectangulate; posterior margin practically truncate. Tegmen as shown in fig. 12; strongly sclerotized, not attingent mesally, broadly rounded at apex of costal margin, humeral trunk apparent but feeble; punctures of tegmen arranged in concentric arcs mesad of humeral trunk. No wings visible. Legs typical for the genus; anterior surface of front tibia and apex of femur as in fig. 11.

Abdomen less convex than pronotum; segments well defined. Venter of abdomen smooth, most noticeably punctate along lateral margins. Sternite immediately basad of subgenital plate with posterior margin broadly emarginate; other sternites very slightly to not at all emarginate. Subgenital plate covering all of ventral surface of abdomen beyond sixth tergite, slightly roundly emarginate opposite cerci, apex broadly rounded. Supra-anal plate and cerci as figured (fig. 12), typical of the genus.

*Coloration.*—Dorsal surface black, faintly tinged with buff at anterior lateral angles of pronotum and along costal margins of tegmina. Compound eyes chocolate brown, vertex blackish brown, ocellar area, genae, mandibles, and labrum yellowish buff; clypeus black, margins pale. Frons deep black, the black color extending with same intensity to frontal sutures. A conspicuous black spot below each antennal socket marking a muscle attachment (the myociaatrix of Crampton) of tentorium. Basal 10 segments of antenna buff, others dark brown. Legs yellowish buff, spines somewhat darker, black at extreme apex; middle and hind coxae dark brown basally and with a short, median, tongue-shaped extension, reaching one-third to one-half the length of the area, which receives the femur in repose; margins of coxae and femora and apices of tibiae and tarsal segments light brown. Ventral abdominal surface grading from pale buff at base to black at apex of subgenital plate. Supra-anal plate black; cerci black, each with a small spot of buff near apex.

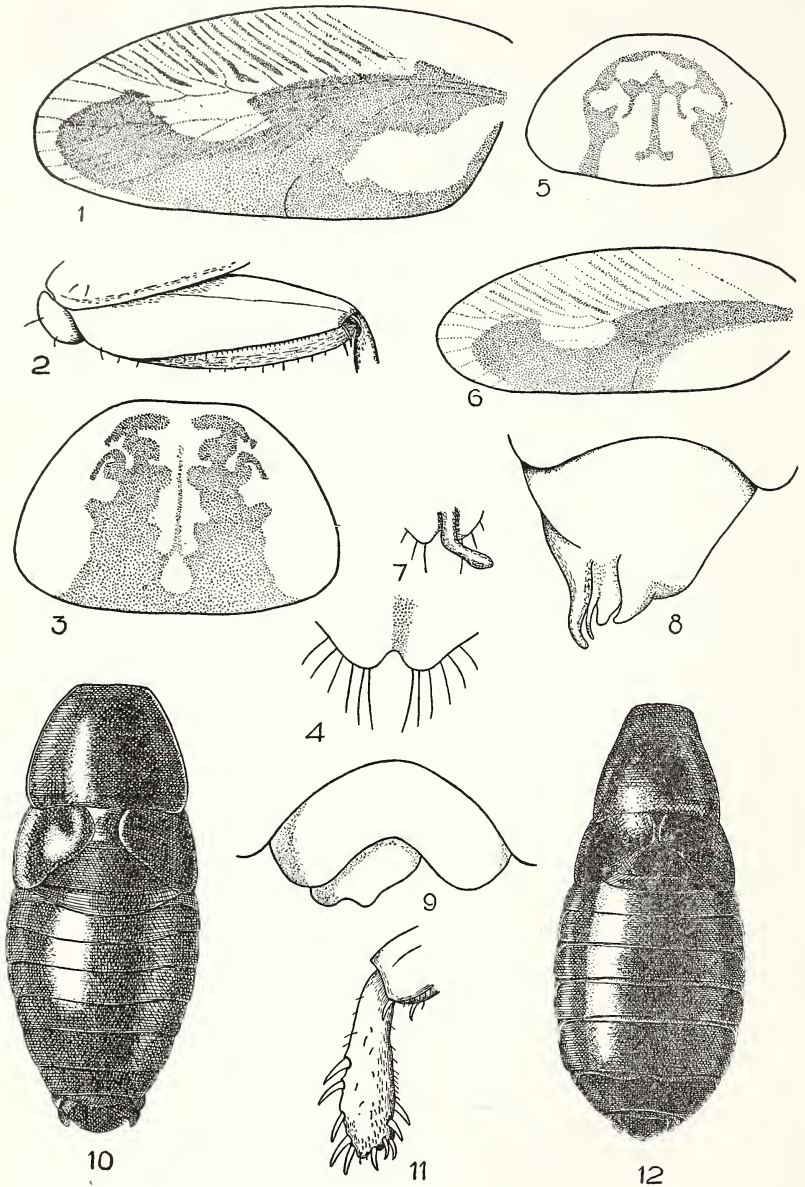
*Measurements.*—Length of body 21.5 mm., of pronotum 6.1, of tegmen 3.7, of hind tibia 4.5; width of pronotum 7.0 mm., of tegmen 5.0; interval mesad between tegmina 0.6.

*Type locality.*—Colombia, South America.

*Type No.* 52015 U. S. N. M.

A single adult female intercepted at Washington, D. C., in orchids from Colombia, August 7, 1936; Identification Lot No. 36-25793.

It is a pleasure to name this new species in memory of the late Mr. Andrew Nelson Caudell.



**Poroblatta bicolor**, new species (fig. 10).

*Female*.—In general form close to *apatela*. Punctures on dorsum of abdomen scarcely noticeable, delicate but definite on thoracic nota and tegmina. Head of same form as in *caudelli*, vertex visible to a small extent from above, remainder concealed by pronotum. Vertex and interocular space smooth and shining; impressed punctures decidedly fewer than in *apatela* and *caudelli*. Compound eyes and appendages of the head as in *caudelli*. (The type of *bicolor* has only the basal segment of each antenna present.)

Pronotum decidedly less convex than that of *caudelli* and differing in proportions of width and length as indicated by the figures and measurements given. Tegmina as shown in fig. 10; apical mesal margin almost straight oblique, roundly emarginate to only a small extent; longitudinal humeral trunk indicated; punctures less prominent than in *caudelli*. No wings visible. Abdomen less convex than in *caudelli*; legs and ventral surface of the abdomen similar in the two species; supra-anal plate distinctly punctate, more broadly rounded at apex than in *caudelli*; subgenital plate and cerci typical of genus. (The type of *bicolor* was carrying a protruding ootheca when received and is so mounted.)

*Coloration*.—Dorsum of abdomen uniformly blackish chestnut brown, shining; mesal areas of thoracic nota and of tegmina somewhat lighter in shade than abdomen, grading into a band of yellowish buff along costal margins of tegmina and lateral margins of pronotum, the latter conspicuously spotted with small brown spots on the light marginal background. Coloration of head differing from that of *caudelli* in being generally lighter and more mottled on vertex and interocular space; frons dark brown rather than a distinct black, intensified color not extending to the frontal sutures; a light brown triangular area delimited by frontal sutures on two sides is marked by three prominent dark spots; location of tentorial muscle attachments below antennal sockets not conspicuous. Legs colored as in *caudelli*. Venter of the abdomen very similar in the two species; subgenital plate lighter in *bicolor*, and lateral margins of sternites lighter and more conspicuously marked with small dark spots. Cerci with extreme tip and basal two-thirds black, subapical portion light buff.

*Measurements*.—Length of body 21 mm., of pronotum 5.9, of tegmen 3.3, of hind tibia 5.4; width of pronotum 8.3 mm., of tegmen 4.4; interval mesad between tegmina 1.9.

*Type locality*.—Bucaramanga, Colombia, South America.

*Type* No. 52016 U. S. N. M.

A single adult female collected by E. P. Killip, 1927.

**Nautilidas nigra** (Brunner).

*Parasphaeria nigra* Brunner, Proc. Zool. Soc. London, p. 206, Pl. 15, fig. 7, 1892.

*Perasphaeria* (error for *Parasphaeria*) *rufipes* Brunner, Id., p. 604, Pl. 52, fig. 3, 1893.

*Poroblatta nigra* (Brunner), Hebard, Trans. Amer. Ent. Soc., Vol. 55, p. 384, 1929 (synonymy of *rufipes* (Brunner) established).

*Nautilidas nigra* (Brunner), Rehn, Id., Vol. 56, p. 58, 1930 (synonymy of *rufipes* (Brunner) accepted).

Grenada, British West Indies—One adult female collected by Sebastian Gates, 1933 (U. S. N. M.).

Previous published records are as follows:

St. Vincent—Brunner's type locality of *nigra*.

Grenada—Brunner's type locality of *rufipes*.

St. Lucia—By Rehn and Hebard as *Poroblatta rufipes* in 1927 and Hebard as *P. nigra* in 1929.

Becquia Island—By Hebard in 1929 as *P. nigra*.

#### EXPLANATION OF PLATE.

Fig. 1. *Aglaopteryx notabilis*, new species, left tegmen.

Fig. 2. Same, anterior aspect of left front femur including trochanter and portions of coxa and tibia.

Fig. 3. Same, dorsal view of pronotum.

Fig. 4. Same, dorsal view of apex of supra-anal plate.

Fig. 5. *Aglaopteryx absimilis*, new species, dorsal view of pronotum.

Fig. 6. Same, left tegmen.

Fig. 7. Same, ventral view of apex of supra-anal plate and projecting genital hook.

Fig. 8. Same, ventral view of subgenital plate.

Fig. 9. *Attaphila flava*, new species, ventral view of subgenital plate.

Fig. 10. *Poroblatta bicolor*, new species, general dorsal view.

Fig. 11. *Poroblatta caudelli*, new species, anterior aspect of right front tibia and apex of femur.

Fig. 12. Same, general dorsal view.

(Figures 1, 3, 5, 6, 10 and 12 drawn by Mary Foley Benson, others by the author.)

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#### NOTES ON NORTH AMERICAN LYCOSID SPIDERS.

By IRVING FOX,

Collaborator, Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture.

The material on which the following paper is based reposes in United States National Museum, to whose authorities I am indebted for the privilege of studying its collections. I wish also to express my appreciation to Miss E. B. Bryant of the Museum of Comparative Zoology and to Dr. W. J. Gertsch of the American Museum of Natural History for permission to examine types of the species synonymized in this paper.